



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,402	01/09/2004	Michael Baumann	2185-173	6385
6449	7590	07/23/2004	EXAMINER	
ROTHWELL, FIGG, ERNST & MANBECK, P.C.			POKER, JENNIFER A	
1425 K STREET, N.W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20005			2832	

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,402

Applicant(s)

BAUMANN ET AL.

Examiner

Jennifer A. Poker

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date April 30, 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

General Status

1. This is a first action on the merits of application filed on January 9, 2004. Claims 1-21 are pending and are being examined.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “the double EQ core; round center limb and two outer limbs which are curved in a concave shape” recited in claim 2; the “EI core” recited in claim 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 6-11 and 16-19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 6-9 and 16-19, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 6-9 recite the broad recitation "the cross sectional area of the center limb is greater than 100mm²", and the claim also recites "preferably greater than 110mm², more preferably greater than 120mm²", which is the narrower statement of the range/limitation. Claims 16-19 recite the broad recitation, "the width of said core is less than 26.5mm", and the claim also recites, "preferably in the range from 24mm to 26mm", which is the narrower statement of the range/limitation.

Art Unit: 2832

Regarding claims 10 and 11, applicant states, "core of the stated type". This limitation is indefinite. Examiner is uncertain what applicant meant by this limitation. For examination purposes, examiner assumes that the core is E-shaped with an inner limb and two outer limbs. Prior art is applied accordingly.

Further regarding claim 11, applicant states, "a core, over whose limbs a plate is arranged which runs essentially parallel to the said base surface." Examiner does not understand what applicant means by a "over whose limbs a plate is arranged." Examiner understands that the limbs are supported by a base structure, which is illustrated in the drawings, however, the plate, which is illustrated in figure 22, is not arranged OVER the limbs. From what examiner can see, the plate seems to be functioning as the base, supporting the limbs. Explanation or correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-21 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 4,352,080 to Mitsui, et al., in view of European Patent Number 1,466,880 to Hirst, et al.

Regarding claims 1-5 and 16-19, Mitsui, et al, discloses a swinging choke comprising:

(1) a core having two identical core halves, each half having a center limb and two outer limbs (Figures 6 and 10), wherein the cross sectional area of the longitudinal section of the center limb being greater than 90 mm² (Table 1).

- (2) two core windows being identical mirror images of one another.

Mitsui, et al., discloses the claimed invention except for the specific volume being less than 26.5mm X 26.5mm X 15mm (width X depth X height), however Mitsui, et al, does disclose that the core must be small in size and light in weight (column 1, lines 34-36)

Hirst, et al, discloses structures for an electromagnet device, such as an E-shaped member (EI), wherein specific equations are used for calculating width and depth (width and length). The width of one outer limb is $1/2X$. The width of a second outer limb is $1/2X$. The width of the center limb is X . The length of the one outer limb is $3X$. The length of a second outer limb is $3X$. The length of the center limb is $3.5X$. Hirst, et al, discloses values of X that may be incorporated into the equations, however, one with ordinary skill in the art, would have known to utilize any value suitable for application.

Mitsui, et al, in view of Hirst, et al, discloses the claimed invention except for stating the specific height values and for stating the specific shapes of the cores, such as double E with cuboid center and EQ. These cores, however are very well known in the art. Applicant further admits on page 4 of the specification (paragraph 0021) that any E-shaped core having a center limb and two outer limbs may be used.

One skilled in the art, at the time the invention was made would have found it obvious to combine the teachings of Mitsui, et al, with the teachings of Hirst, et al, and utilize suitable values for the width, depth (length), and height for proper applications. Furthermore, a volume modification would have involved a mere change in the size of the component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955)

Art Unit: 2832

Regarding claims 6-9, Mitsui, et al, further discloses that the cross-section of the center limb may be greater than 61mm^2 , 113mm^2 , 142mm^2 , etc. (Table 1, columns 5 and 6).

Regarding claim 10, Mitsui, et al, further discloses a double core having two cores facing one another (abstract; figures 9 and 10).

Regarding claim 11, Mitsui, et al, further illustrates a pair of base plates (18 and 20) supporting the limbs of the core (figure 8).

Regarding claims 12 and 13, Mitsui, et al, further illustrates the use of a circular center limb (figure 8) wherein the outer limbs are shaped to support a winding and are defined by the circular shape of the center limb.

Regarding claims 14 and 15, Hirst, et al, further discloses several values of the width of the center limb, however not within the range of the applicant. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a suitable range for a width of each limb, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Furthermore, although Hirst's width is larger than applicant's claimed width, it would have been an obvious matter of design choice to reduce the width of the any limb since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Regarding claim 20, Mitsui, et al, further discloses the material of the core halves being Mn-Zn type ferrite (column 5, lines 35-36).

Art Unit: 2832

Regarding claim 21, Mitsui, et al, further discloses that preferably, the external shape of a core is rectangular for saving the mounting area of the transformer on a printed circuit board (column 1, lines 37-39).

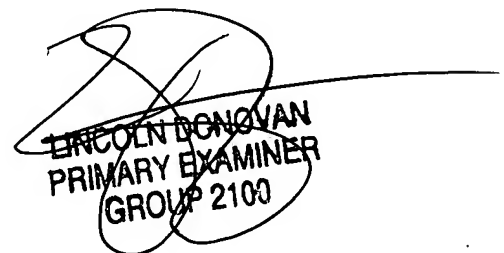
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Poker whose telephone number is 571-272-1997. The examiner can normally be reached on 5:30-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jap
June 24, 2004


LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100